Table of Measurements—Continued.

Current number of specimen	891 *c*.		5,864 *a*.		5,864 *b*.		5864 *c*.	
Locality	Mouth of Rio Grande.							
	Millim.	100ths.	Millim.	100ths.	Millim.	100ths.	Millim.	100ths.
Extreme length	73	.....	86	.....	81	.....	74	.....
Body:								
Greatest height	.....	40	.....	38	.....	36	.....	38½
Head:								
Greatest length	.....	30	.....	32	.....	30	.....	33
Distance from snout to nape	.....	22½	.....	23	.....	21½	.....	24
Length of snout from perp. from centre of orbit	.....	11½	.....	12	.....	10	.....	11
Length of operculum	.....	10	.....	10	.....	10	.....	10
Length of maxillary	.....	14	.....	14	.....	13½	.....	14½
Length of mandible	.....	17½	.....	17	.....	16	.....	17½
Distance from snout to centre of orbit	.....	12	.....	.....	.....	.....	.....	.....
Dorsal:								
Distance from snout	.....	57	.....	50	.....	57	.....	52
Length of base	.....	17	.....	16	.....	18½	.....	19
Origin of pectoral to origin of dorsal	.....	37	.....	36	.....	33	.....	36
End of dorsal to end of anal	.....	27	.....	31	.....	26	.....	25
Length of longest ray	.....	14	.....	14	.....	12	.....	14
Length of last ray	.....	7	.....	8	.....	5½	.....	7
Anal:								
Distance from snout	.....	69	.....	72	.....	70	.....	70½
Length of base	.....	19	.....	19	.....	17	.....	19
Origin of anal to origin of dorsal	.....	37	.....	37	.....	36	.....	37
Length of longest ray	.....	7	.....	impf. 7	.....	6	.....	9
Length of last ray	.....	5	.....	impf. 5	.....	4	.....	6
Caudal:								
Length of middle rays	.....	9	.....	7	.....	6	.....	9½
Length of external rays, superior	.....	27	.....	27	.....	.....	.....	.....
inferior	.....	27	.....	30	.....	25	.....	.....
Pectoral:								
Distance from snout	.....	30	.....	33	.....	30	.....	32
Distance of tip from snout	.....	47	.....	48	.....	47	.....	50
Length	.....	17	.....	18	.....	17	.....	19
Ventral:								
Distance from snout	.....	52	.....	53	.....	53	.....	52
Length	.....	10	.....	9	.....	8	.....	10
Origin of ventral to end of dorsal	.....	36	.....	32	.....	32	.....	35
Dorsal rays	18	.....	19	.....	18	.....	19	.....
Anal rays	21	.....	22	.....	20	.....	21	.....
Number of scales in lateral line	65 or more.	.....	abt. 70	.....	abt. 55	.....	abt. 55	.....

DESCRIPTION OF CAULOLATILUS MICROPS, A NEW SPECIES OF FISH FROM THE GULF COAST OF FLORIDA.

By G. BROWN GOODE and TARLETON H. BEAN.

The Smithsonian Institution has received from Mr. Silas Stearns, of the Pensacola Ice Company, Pensacola, Fla., a fish new to the fauna of the United States, and believed to be new to science. This fish was taken March 18, 1878, on the Snapper Bank, off Pensacola, in 35 fathoms of water. It was packed in ice, and arrived in good condition, March 22, at the National Museum, where it was cast in plaster, and sketched by Mr. Shindler. It is now a fine alcoholic specimen, No. 20,971 of the Fish Catalogue.

Caulolatilus microps is related to the Brazilian form *Caulolatilus chrysops* (Cuvier and Valenciennes) Gill, and the Cuban form *Caulolatilus cyanops* Poey, described in 1867.* Of the former, two specimens only

* Repertorio Físico-Natural de la Isla de Cuba, i, p. 312.

are recorded: one, the type of the original description, one foot long, collected on the coast of Brazil by M. Gay, and probably now in the Museum in Paris; a second in the British Museum, a stuffed specimen, purporting to have been collected in the West Indies. Of Poey's *C. cyanops* the National Museum possesses a fine specimen (Cat. No. 4750), 15 inches long, collected and presented by Professor Poey.

The Pensacola specimen, now under consideration, is two feet and three inches long, weighing nine pounds and one-quarter. Its color has faded, but a yellow blotch is still visible under the eye, similar to that mentioned in *C. chrysops*. A dark blotch is visible in and above the axilla of the pectoral.

The following diagnosis is believed to characterize the peculiarities of the new form. It is accompanied by a table showing the detailed measurements of *C. cyanops* and *C. microps*, and another showing the relations of *C. chrysops* as far as they can be gleaned from the published descriptions.

Caulolatilus microps, *sp. nov.*, Goode and Bean.

Diagnosis.—Height of body contained slightly more than three and one-half times in its length, its width seven times, the species being higher and more robust than *C. chrysops* and *C. cyanops*. Length of head equal to height of body, being in same proportion to total length as in *C. cyanops* (though less in proportion to height of body), and longer proportionally than in *C. chrysops*. Width of interorbital area equal to half the length of snout, instead of four-fifths, as in *C. cyanops*. Length of snout greater than that of maxillary. Diameter of eye contained six times in length of head, instead of four times, as in *C. chrysops*, and three and three-fourths times, as in *C. cyanops*. Nostrils midway from eye to snout, and separated by a distance equal to diameter of eye. Dentition much as in *C. cyanops*. Fins all shorter than in *C. cyanops*, the anal and soft dorsal two-thirds as high. Caudal fin slightly emarginate. Pectoral not extending to first ray of anal, as in the other species, less than one-fourth of total length. Scales in lateral line 120, in transverse line 48, being smaller and more numerous than in *C. cyanops*.

Radial Formula.—D. VII, 25; A. I, 23; C. 17; P. I, 16; V. I, 5, instead of D. VII, 24; A. I, 22; C. 19; P. I, 15; V. I, 5, as in *C. cyanops*, or D. VIII, 24; A. II, 22; C. 17; P. 17; V. I, 5, as in *C. chrysops*.

Table of Measurements.

Current number of specimen	*Caulolatilus microps*, 20,971.		*Caulolatilus cyanops*, 4,750.	
Locality	Pensacola, Fla.		Cuba.	
	Millim.	100ths.	Millim.	100ths.
	Fresh specimen.		*Alcoholic specimen.*	
Extreme length	620		330	
Length to end of middle caudal rays	690		365	
Body:				
Greatest height		28		24½
Greatest width		14½		12
Height at ventrals		28		24⅕
Least height of tail		8		7
Length of caudal peduncle		10		11
Head:				
Greatest length		28		28
Distance from snout to nape				15
Greatest width		14		13½
Width of interorbital area		7		8⅖
Length of snout		14		10
Length of maxillary		12½		10½
Length of mandible		13		12½
Distance from snout to centre of orbit		14⅘		11
Diameter of orbit		4⅖		7½
Dorsal (*spinous*):				
Distance from snout		34		32½
Length of base		12½		13
Greatest height		7½		8
Length of first spine		3½		5
Length of second spine		5½		6
Length of last spine		7½		9½
Dorsal (*soft*):				
Length of base		44½		46
Length of first ray		7		10½
Length of longest ray		8½	(22d)	13
Length of last ray		4¼		5
Anal:				
Distance from snout		55		51⅗
Length of base		35½		37½
Length of antecedent spine		3		3
Length of first ray		6		7½
Length of longest ray	(9th)	8½	(11th)	12
Length of last ray		4½		5
Caudal:				
Length of middle rays		11½		11
Length of external rays		16		17½
Pectoral:				
Distance from snout		30⅓		27½
Length		23		26
Ventral:				
Distance from snout		34⅓		31
Length		14		16
Branchiostegals	VI		VI	
Dorsal	VII–25		VII–24	
Anal	I–23		I–22	
Caudal	17		19	
Pectoral	I–16		I–15	
Ventral	I– 5		I– 5	
Number of scales in lateral line	abt. 120		108	
Number of transverse rows above lateral line	13		10	
Number of transverse rows below lateral line	35		25	

Table showing Comparative Proportions of Atlantic Species of CAULOLATILUS.

	*C. chrysops.**	*C. cyanops.*	*C. microps.*
Height of body in total length	4¾	4½	3½
Width of body in total length	10	8½	7
Head in total length	4½	3½	3½
Interorbital width in total length		12	14⅔
Snout in total length		10	7½
Upper jaw in total length		10	8
Snout to orbit in total length		9	7
Eye in head	4	3⅔	6
Nostrils	Near eye	¾ distance from snout to eye.	Midway from snout to eye.
Height of dorsal in total length (of body)		12½	13½
Anal			Farther from snout than in *cyanops*, and two-thirds as high.
Caudal			Less emarginate than in the other species.
Pectoral	Extends to first anal ray.	Extends to first anal ray.	Does not reach first anal ray.
Scales in lateral line	110+	108	120
Transverse rows of scales		35 (10+25)	48 (13+35)

* These proportionate measurements, as taken from the "Histoire Naturelle des Poissons", doubtless have reference to extreme length to end of external caudal rays. In this genus, however, the difference thus admitted is not extremely large.

APRIL 30, 1878.

THE OCCURRENCE OF HIPPOCAMPUS ANTIQUORUM, OR AN ALLIED FORM, ON SAINT GEORGE'S BANKS.

By G. BROWN GOODE.

A specimen of *Hippocampus*, measuring about five inches, was procured by the United States Fish Commission from a mackerel schooner, which had captured it, in company with a school of mackerel, on Saint George's Banks, in August, 1873. It was kept alive for some days, and an interesting fact was observed with regard to its habits, its tail apparently not being used for prehension. This specimen agrees very closely with *H. antiquorum* as described by Günther, and is provisionally referred to that species; it does not agree with the description and figure of *H. hudsonius*, DeKay, a species which has never been accurately defined, and which may prove identical with *H. guttulatus*, Cuv.

H. antiquorum is, then, an addition to the fauna of Eastern North America. The geographical range of the species is very wide; it has been recorded from the English coast, the Mediterranean at Malta and other points, Fernando Po, Japan, and Australia. Several specimens were collected in Bermuda in 1872 and 1877 in company with *H. guttulatus*.

A specimen received by Storer from Holmes's Hole was, in his first report, referred to *H. brevirostris*, Cuv., which is synonymous, according to Günther, with *H. antiquorum*. Storer afterward adopted the name proposed by DeKay, but his description and figure refer to a form more nearly resembling that now under consideration.

The following notes were taken from the fresh specimen, the colors while it was living:—

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